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Comments on FCC Docket 02-60

These remarks are in response to the Second Report and Order, Order on Reconsideration, and Further Notice of Proposed Rulemaking released by the FCC on February 7, 2005. In addition, these remarks address the implementation of the new rural definitions released by the FCC in its Proposed Order and Rulemaking approved on December 15, 2004.

Northern Sierra Rural Health Network (NSRHN) is a non-profit organization that supports the delivery of health care services to a remote rural region of northeastern California. Since 1999, we have developed and now manage a regional telemedicine network that connects 30 rural health facilities with telemedicine technology. Our members have conducted over 3,000 clinical consultations since 1999.

Eleven of these rural health providers are located in a region of California that is not served by ISDN. As a result, we have developed a complex private-line network that connects these providers through a video conferencing bridge in order to simulate an ISDN environment. This network is heavily supported by federal Universal Service Funds – since 1999, our members collectively have received over \$500,000 in universal service subsidy support.

Over the years, we have watched the universal service program expand and improve its ability to meet the needs of rural health providers. The 2004 Rulemaking made several important improvements to the program and we appreciate the attention and effort exhibited by the FCC and by the Universal Service Administration Corporation (USAC) to listen to concerns expressed by rural health providers and others concerned with this program.

Our comments below cover the areas of Internet access, support for mobile rural health providers and support for infrastructure development. We also provide comments on our initial experience with the new definition of rural promulgated by the FCC last year.

A. INTERNET ACCESS

Recommendation on Internet Access. We suggest that the USAC subsidy for Internet access be used to encourage rural health providers to obtain the highest Internet speeds that are available to them by paying 100% of the difference between the lowest Internet speed available (including dial-up) to the

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highest speed available. Further, we suggest that universal service funds should be used to help offset the costs of obtaining higher Internet speeds of a minimum of 1.54 mbps down/384 mbps up. Subsidy costs should include any method available to obtain the higher speed, including satellite, cable broadband modem, and wireless communication.

Comments on Internet Access. We are pleased that the FCC recognizes that Internet access is an important component of technology services needed by rural health providers. Every day, the Internet is used by rural health providers to obtain necessary health care information, bill for medical services, and communicate with patients and colleagues. We believe there are two reasons why this aspect of the rural health program has not been sufficiently utilized.

First of all, in the early years of the program, the subsidy was limited to the cost of the dial-up connection to receive the service, if this was a long-distance call. Frankly, the hassle factor of applying for support compared with the small amount of support received for Internet connectivity was a disincentive to apply for funding. In a previous rulemaking, the FCC changed the formula for support and now, 25% of an Internet connection's total costs can be recovered using Universal Service Support. However, there has still not been much growth in the program. The Internet is such a vital piece of every day communications that frankly, health care providers will connect at least to basic Internet with or without a subsidy.

From our experience, the real need for Internet subsidy support is assistance with obtaining the higher speed connectivity that is increasingly becoming available in rural areas. DSL, while certainly not universally available in rural areas, is more available than ever before. The lowest speeds of DSL are currently 384 kbps down and 128 kbps up. All of our rural health providers who have access to DSL obtain at least the basic service. However, the real benefit of Internet comes from higher speeds which are sometimes available in rural communities, but often times not available because of lack of infrastructure.

With higher speeds and higher bandwidths, rural health providers can use the Internet in a more comprehensive way, such as using video streaming for educational events. We believe that universal service funds should be used to help offset the costs of obtaining higher Internet speeds of a minimum of 1.54 mbps down/384 mbps up. The subsidy could be used to encourage rural health providers to obtain higher speeds by paying 100% of the difference between the lowest Internet speed available (including dial-up) to the highest speed available. For example, dial-up can be as little as \$10/month, while higher speed DSL can cost as much as \$125/month. In this example, the USAC subsidy would be the **DIFFERENCE** between these two costs, or \$115/month. This model is similar to the model used to pay for telecommunication services, which pays for the difference between the urban and rural costs of similar services. Subsidy costs should include any method available to obtain the higher speed, including satellite, cable broadband modem, and wireless communication. The availability of this subsidy may also increase demand for higher speed services which in turn, may help with some of the infrastructure barriers, discussed below.

This type of incentive program recognizes that while most providers will choose the least expensive Internet option available to them, they will be better served by a faster, more robust connection to the Internet if it is available and if it is affordable. By supporting the difference between the lowest Internet access service available and the greatest speed available, the FCC will be providing access to improved broadband services for rural health providers.

B. SUPPORT FOR MOBILE RURAL HEALTH PROVIDERS.

Recommendation and Comments. The Notice requests comments on whether or not universal service funds should be used to offset the costs of using services other than satellite to connect mobile rural health care providers. Given the high cost of obtaining satellite services, and also recognizing that technology changes faster than regulation, more flexibility in this area is desirable. We further recommend that the FCC consider allowing RHCD funds to pay for the equipment necessary to conduct mobile rural health services.

C. SUPPORT FOR INFRASTRUCTURE DEVELOPMENT

Summary of Recommendations.

- a. Revise broadband penetration methodology.** The FCC should revise the methodology it currently uses to determine broadband penetration to provide a more accurate picture of broadband deployment in rural areas.
- b. Provide support for infrastructure development.** The FCC should allow RHCD funds to be used to fund both network build-out and last-mile technologies of all types, similar to the E-rate program.
- c. Support for public/private partnerships.** The FCC should encourage and provide incentives to public/private partnerships which leverage investments to provide public benefit telecommunications services.
- d. Encourage multiple public benefit uses on subsidized infrastructure networks.** By allowing multiple public and non-profit sectors such as rural health, education, local and state government organizations to use subsidized infrastructure networks, the FCC would achieve desirable policy goals of expanding access and lowering operational costs.

Comments on Recommendations.

a. Revise broadband methodology. We are very pleased that the FCC is seeking comments in this area. Those of us living and working in rural communities have long recognized that without sufficient access to infrastructure, we would not be able to receive access to the benefits of advanced technology. The “last-mile” issue is still a barrier to many rural health providers receiving access to technology.

Before commenting on the specific questions raised in the Notice, we need to comment on the methodology used by the FCC to determine access to advanced technology. In a recent hearing held by the California Public Utilities Commission on the deployment of broadband in California, the CPUC presented a map prepared using FCC data on the availability of broadband within California. The map showed that virtually every county in the state had at least one broadband choice available, with many rural counties having more than one choice of provider (e.g. DSL and cable modem). Unfortunately, the methodology used by the FCC

assumes that if one person in one zip code of a county has access to broadband, then the entire county is deemed to have broadband access.

This methodology does not recognize the great distances in many rural counties, particularly in the western part of the country. As a result, while DSL may be available to a few residents and businesses in the population core of a county, the vast majority of residents and businesses living outside that core do not have access at all to broadband. We respectfully suggest that the FCC revise its methodology in determining broadband access, because it frankly distorts the true picture of inadequate access to broadband in rural communities.

In our network alone, we still have five communities who are not served by DSL or any other type of broadband technologies. However, the FCC methodology would not capture this information, since in communities more than 30 miles away, at least one person has DSL or cable modem.

b. Support for infrastructure development. We very much encourage the FCC to make universal service funds available to support the installation and operation of infrastructure to support broadband services in rural communities. Without investment in “last-mile” technologies, rural communities and their rural health providers will continue to lag behind in using technologies to support health care services. The FCC has recognized this by allowing Universal Service Funds to be used by schools and libraries under the E-Rate program to pay for infrastructure. The result has been the creation of robust educational telecommunications networks that have truly transformed education in this country. This same revolution could be brought to rural health providers if universal service funds could be used to pay for infrastructure costs.

Now, more than ever, there is pressure on rural health care providers to use technology to expand access to needed health services, improve quality of care, and increase efficiency in the delivery of health services. For example, the National Institute of Medicine, in its recently released report “Quality through Collaboration: The Future of Rural Health Care” recommended a five-pronged strategy to address the health care quality challenges in rural communities.¹ One of these five strategies recommended investments in building an information and communications technology infrastructure to enhance health and health care in rural communities over the coming decades. However, the report also noted that a study completed in 2000 showed that cable modems and DSL were available in only 5% of towns with fewer than 10,000 population, compared with a cable modem penetration of 65% of communities with more than 250,000 population and a DSL penetration of 56% of communities over 100,000 in population. The report goes on to conclude “This aspect of the digital divide is one of the greatest challenges for rural telehealth, as well as other rural commerce”.²

The report also makes specific recommendations to Congress regarding strategies to expand the use of broadband networks by rural health providers including:

¹ National Academy of Sciences. *Quality Through Collaboration: The Future of Rural Health Care*. 2005. p. 3 <http://books.nap.edu/books/0309094399/html/index.html>

² National Academy of Sciences. . pp. 165-165

- Expanding and coordinating the efforts of federal agencies to extend broadband networks into rural areas
- Prohibiting local area telecommunications access networks from imposing surcharges for the transfer of health messages across regions
- Expanding the Universal Service Fund's Rural Health Care Program to allow the participation of all rural providers and to increase the amount of the subsidy ³

In addition to promoting access, improving quality, and increasing efficiency, rural broadband networks are vital links in disaster preparedness and emergency response. Increasing federal, state and local resources are being expended to develop coordinated responses to a variety of natural and manmade disasters. Access to an extensive communication network is a key element in the ability of rural health care providers to be responsive in the event of an emergency. This is just one more reason why it is vital for the FCC to develop a comprehensive infrastructure investment program that ensures that rural health providers are connected to the outside world.

c. Support for Public Private Partnerships. When designing a support program to help build-out broadband to rural communities, we would encourage the FCC to allow public/private partnerships to be able to participate in this type of program. As defined by Prof. Allen S. Hammond, IV, Director of the Broadband Institute of California (BBIC), a public/private partnership (PPP) is a contractual agreement between a public agency (federal, state or local) and a for-profit corporation for service delivery or facility construction in which skills and assets are shared and leveraged, and risks and rewards potential are shared. Public-private partnerships have been implemented to provide greater efficiency, better access to capital and improved compliance with government regulations.⁴

At the end of these comments is a chart showing examples of how public/private partnerships have been used successfully in states and communities around the country to expand access to broadband services. These partnerships work because they help offset the inability of the marketplace to provide needed services in underserved communities.

In each of these partnerships, a telecommunications service provider partners with a public or a non-profit entity to design, install, operate or maintain a telecommunications network with greater bandwidth and capacity than would have been possible without the partnership. One of the great strengths of these partnerships is the variety of business relationships that ensure that the services provided and the structure of the partnership is responsive to local, regional or statewide needs.

Often, it is the public/non-profit organization that initiates a public/private partnership as a way of meeting community needs not otherwise available. When it finds a willing private partner, the ability to leverage public financing is often a key element in making an otherwise unprofitable operation feasible from the private entity's perspective.

³ National Academy of Sciences pp. 14 – 15

⁴ Hammond IV, Allen S., Director of Broadband Institute of California at California, presented to Public Utilities Commission Broadband Deployment hearing on February 8, 2005. All references from Mr. Hammond's presentation used by permission.

A key element of this type of support should be the recognition that many projects do not get off the ground because of the inability to pay for start-up costs such as feasibility studies, engineering plans, market analysis and other types of exploratory work. We recommend that a portion of any new funds allocated to infrastructure development be used as grants to help for these types of start-up operations.

The FCC's policy should be to support the deployment of broadband as widely as possible. When the private sector alone cannot finance the installation of infrastructure, creative public/private partnerships can be used to provide investment incentives to the private sector. We encourage the FCC to explore how universal service funds could be used to support public/private partnerships that would result in the increased deployment of broadband in rural America.

d. Broaden the definition of benefit. The FCC has long been concerned that the benefits of the rural health program inure solely to rural health providers. However, this concern sometimes leads to an inefficient use of expensive and scarce resources and does not recognize the benefits of shared use of resources for rural communities. For example, the use of the E-rate subsidy program has resulted in the installation of very-high capacity fiber networks in many parts of the country. In some smaller rural communities, these high-speed networks are not fully utilized and could benefit from a partnership with entities like rural health care providers to help pay for the on-going, fixed operating cost of the services. However, regulations in both the E-rate program and the rural health program make this type of shared use not feasible. These same types of regulations make it not feasible for rural health providers to use public networks developed by local governments for emergency services or other single-use networks.

In the long run, the installation and maintenance costs of multiple single-purpose, publicly subsidized telecommunications networks are inefficient and wasteful. Instead, the universal service programs should promote partnerships between non-profit, public agencies such as rural health care providers, schools, local governments, state governments and other public entities that may operate telecommunications networks and who share in the mission of providing needed services to rural communities. While we recognize that for-profit use of publicly subsidized services is not desirable, the FCC should recognize that encouraging public/non-profit partnerships to share in the costs of installing and using broadband networks is another way of providing incentives to build out broadband in rural communities across America.

Promoting more effective shared use of subsidized networks actually helps achieve the policy goal of expanding access to advanced telecommunications services by rural health providers, a policy goal we strongly support. Shared use of networks can actually reduce the cost of services to rural health providers, thus making it more likely that they will participate and making more funding available to support the Rural Health Care program. The alternative is promoting single-use systems that are more expensive to operate and even with subsidy, may not be affordable in the long run.

D. DEFINITION OF RURAL

Summary of Recommendations.

- a. Urban Core Threshold.** Expand urban core population threshold to 50,000 persons.
- b. Census tract boundaries.** Require that a census tract be entirely within an urban core to be considered urban.
- c. Future comment period.** Reconsider definition of rural within the next two years by requesting comments on impact of implementation of new rules.

Comments of Recommendations.

While not a specific part of this Notice, we would like to provide some feedback on the implementation of the FCC's new definition of rural as outlined in the December, 2004 rulemaking. First of all, the FCC is to be commended for moving toward a more flexible, nuanced approach to defining rural. Here in California, as a result of the FCC's definition, several additional rural health providers will now be able to participate in the universal service program.

However, in analyzing the impact of this definition on rural health care providers in California, we note two significant problems. One has to do with the population threshold of 25,000 and the second has to do with the extent to which a census tract is contained within the urban core.

a. Urban Core Threshold. As the FCC correctly notes in its December, 2004 Rulemaking, selecting a population threshold is not an exact science. However, using the census bureau "urban core" concept and combining that with a population cap of 25,000 results in many rural communities who do not have access to adequate telecommunications services being eliminated from the universal service program. This is particularly true out in the west, where the census bureau has drawn large "urban core" boundaries, meaning that some communities may be 30 miles or more away from the "urban core". We recommend that to more accurately reflect the realities of the large rural counties in the west, the FCC expand the urban core population threshold to 50,000.s

b. Census tract boundaries. The second problem with the new definition lies in the two words "or part". For example, in reviewing the impact of the new definition in Nevada County, the rural county where our organization operates, we learned that many of the communities previously considered rural are now considered "not rural" because a small part of the census-defined urban core (which does not follow census tract boundaries) bleeds into an otherwise completely rural census tract. In some cases, this contamination affects one small corner of a very large census tract. The rural health facility may be located in the opposite corner of this rural census tract, but it is now not eligible for universal service. To correct this issue, we recommend that the FCC remove the words "in part" and require that a census tract be wholly inside the urban core in order to be considered "non-rural".

c. Future comment period. We appreciate the complexity of this rural definition and are thankful for the three year grace period afforded by the FCC to further refine the definition. We encourage the FCC to continue to request comments from the field regarding the impact of the rural definition. We also recommend that the FCC specifically review their rural definition within two years and request comments on the effect of their implementation on the universal service program. In this way, the FCC can ensure that it has developed a rural definition that accurately reflects the complexity of rural America.

Thank you for the opportunity to comment on this important program.

Public/Private Telecommunications Partnerships⁵

PROJECT	DESCRIPTION	SOURCE
Colorado: <i>The Multiuse Network (MNT)</i>	MNT is a network built by a public-private partnership between the State of Colorado and Qwest Communications. <ul style="list-style-type: none"> – The State is the anchor tenant for the network and – Qwest is building and will operate the statewide fiber optic network of which the MNT is part. 	http://www.mnt.state.co.us/MNT%20News%20-%20November%201%20Issue.htm
Minnesota: <i>"Connecting Minnesota"</i>	A public-private partnership to build a statewide fiber-optic telecommunications network in the state of Minnesota. The network supports high-speed transmission of voice, graphics, video and data for Greater Minnesota. It also increases the telecommunications capacity in the Minneapolis and St. Paul metro area.	http://www.mainserver.state.mn.us/connectingmn/
New Mexico: <i>MAGnet Backbone</i>	MAGnet allows the State to consolidate all public-sector communications requirements from multiple networks into a single network. MAGnet will provide broadband capacity to the state, and will enable applications such as distance-learning and telemedicine applications, while reducing administrative and maintenance costs to taxpayers.	http://www.qwest.com/about/media/pressroom/1,1281,1066_archive.00.html?[AQB]
Oregon: Qwest	A public-private partnership between Qwest and Oregon to finance \$70 million on network upgrades, including five redundant fiber-optic loops throughout the state. In	http://www.oregonlive.com/business/oregonian/index.ssf/?xml/story.ssf/html_standard.xml?base/business/1041685097261651.xml

⁵ Hammond IV, Allen S.

	exchange for that improvement and investments in school technology, the state deregulated Qwest's profits.	
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PROJECT	DESCRIPTION	SOURCE
<i>Lane-Klamath Regional Fiber Consortium and the Fiber South Consortium</i>	Oregon regional intergovernmental organizations and private developers partnered to respond to a unique public/private telecommunications opportunity to secure dark fiber for community and economic development purposes in a five county region.	http://www.ruralfiber.net/
<i>Wilber, Saline County, Nebraska:</i>	A public private partnership between local governments and a small telephone company. , this community of 1,700 also boasts wireless broadband access. With assistance from University of Nebraska Cooperative Extension, Wilber formed a technology committee in 1996 to address the need for local dial-up access in the community. The committee proved to the local telephone company that sufficient demand existed in the community.	http://www.nitc.state.ne.us/toolkit/telecomsuccess.htm#Saline